ROMA INSULATION SYSTEMS

Cold-store and deep-freeze cells

An efficient building block system with ROMA quick-assembly insulating panels



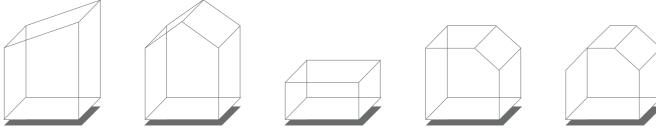
Our cold-store cells can adapt to your company requirements.

As your business grows, so does your ROMA cold-store. Our refrigerated storage cells can easily accommodate other floor plans. All you need to do is order the additional elements required.

An efficient building block system

Our flexible and rational building block system for high-quality cold-store and deep-freeze cells has proven itself around the world.

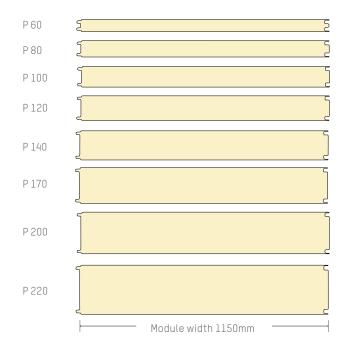




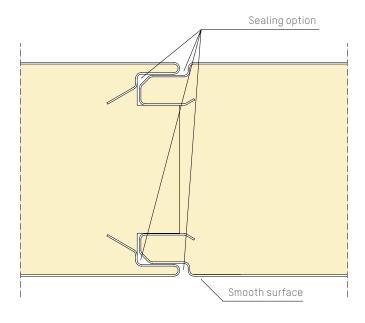
Custom-made cold-store cells for various room configurations

Lower your operating costs with optimal building physics

Our construction elements are equipped with a highly effective insulating core of rigid PIR foam. These elements feature superior seal tightness – based on the labyrinth construction of our double tongue-and-groove joints. This innovative joint technology allows the use of sealing profiles and high-grade special silicone (ROMASIL) at four critical construction points. The seals are permanently elastic, reliably protecting against moisture and rot.



Available in eight economical insulation thicknesses, depending on the desired operating temperature.



Intelligent panel joint construction makes assembly and operation more efficient.

A wide variety of indoor and outdoor uses possible

The ROMA cell building block system can be used for constructing a wide range of room types including these indoor and outdoor applications:

- Refrigeration rooms
- Deep-freeze rooms
- Multi-room combinations

Details on additional applications are found in our brochures "Customized applications" and "Environmental simulation and testing chambers":

- Climate-controlled chambers
- Test and climate rooms
- Test rooms
- Noise-absorbing rooms
- CO₂ storage rooms
- Mobile cold-store and deep-freeze containers
- Shock freezers
- Ripening chambers
- and more

Streamline your facilities with high-quality accessories

- 1. Revolving and sliding doors
- 2. Glass removal doors and windows
- 3. Removal hatches, Ceiling hatch with chain safety device
- Heated door frames
 Strip curtains, swing doors
- 6. Ramps
- 7. Cell floors
- Interior decoration: stationary shelving, hanger systems, ceiling and wall housings
- 9. Pressure compensation
- 10. Tube rail conduits
- 11. Ventilation strips or frost heave protection heaters



Floor designs

Floor surfaces:

- Aluminum
- V2A
- ROMANIT

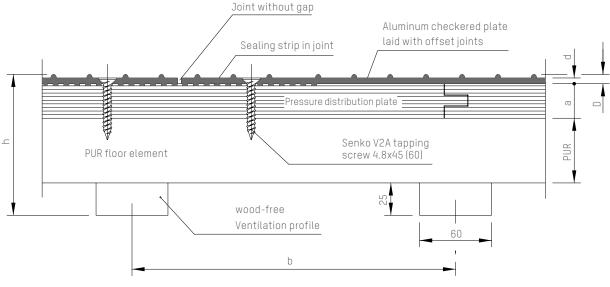
Permitted wheel loads:

- Checkered aluminum plate, 1000N/rubber wheel
- Optional reinforced floor with various wheel loads from 2000N to 10000N/rubber wheel.

Floor design:

- Bolted
- Glued over the entire surface
- Welded
- Vacuum floor: reduced floor structure with the same insulation effect
- Slip resistance class R10, R11, R12 or R13

Request a non-binding floor sample.



Example of standard floor structure

ROMA cold-store and deep-freeze cells – Your benefits at a glance

Optimal room configurations

- ROMA construction elements can adapt to your room situation at any time
- Easy extension and reconfiguration to match company growth
- ROMA allows you to use all the valuable space available at your company site •
- Customized construction meeting your specifications

Streamlined assembly and operational procedures

- Rapid delivery and assembly with our own ROMA assembly team
- Maximum flexibility including shortterm or subsequent planning revisions

Minimize energy and maintenance overheads

- Outstanding insulation and innovative joint technology reduce energy consumption
- Outstanding joint tightness thanks to highly precise element fitting
- High-quality metal cladding ensures excellent hygiene and is easy to clean
- Durable and easy-to-maintain construction elements
- Fast delivery of precisely fitted replacement parts – even many years after original purchase

Also ideal for large cell ceilings

- Self-supporting cell ceilings up to a span of 15m without ceiling supports
- Does not rely on existing locking systems such as cells with turnbuckles

Long-term investment security

- A high-quality brand product "Made in Germany"
- Quality-tested, corrosion-resistant and highly durable
- Elements with building authority approval
- Our own construction department ensures professional planning
- The very latest manufacturing equipment ensures excellent processing
- Sustainable manufacturing

Choose a door to best match your unique specifications

At ROMA you can choose a door construction for your exact needs: Frequency and duration of door opening, type and direction of opening, size of goods stored or cold-store vehicle access. Small or large, with one or two door leaves, manual or

Sliding door

automatic: ROMA sliding and hinged doors are available in a wide range of designs.

Please consult our door brochures for detailed information.



Hinged door

Properties, technical data, product overview

ROMA is a leading manufacturer of doors, cells and chambers.

We develop and manufacture coldstore and deep-freeze cells and doors, climate chambers, cleanrooms and specialized rooms for a wide range of applications in the air conditioning industry. We have over 70 years of success and experience in highly specialized construction sectors.

Ever since its founding, our family-run business has always manufactured top-quality products Made in Germany.

Quality assurance and external monitoring

ROMA's high-precision double conveyor belt production line with computercontrolled quality control results in components of the highest quality and measurement accuracy. It goes without saying that ROMA also has its manufacturing processes externally monitored by IMA Dresden and EPAQ Krefeld.



ROMA Cells, Doors and Chambers Business Unit

Clad	dding layers				
Standard design		0.6mm sheet steel cladding galvanized on both sides			
Surface and color		25µm coating, pure white RAL 9010			
On request		Stainless steel, aluminum and special coatings			
Fire tests			System dimensi	ons	
D	B1 acc. to DIN 4102 – fire-resistant	-	Standard inside heights	2060mm, 2360mm, 2660mm	
СН	Class 5.3 acc. to VKF Bern	-	Panel thicknesses	See thermal insulation	
EU	Euro class B-s1, d0	-	On request	table	
FM	FM Approval (4880, 4881, 4882, 4471)	-	On request	Custom designs	

Insulation thickness	U-value certified to EN 14509 with joint at 0°C	Component weight	Free spans for profiled ceiling elements depending on load type ¹
mm	W/(m²·K)	kg/m²	mm
60	0.338	12.7	to 8000
80	0.247	13.5	to 10000
100	0.196	14.3	to 11000
120	0.162	15.1	to 12000
140	0.139	15.9	to 13000
170	0.114	17.1	to 14000
200	0.096	18.3	to 14500
220	0.087	19.1	to 15000

¹⁾ Examination takes place on a case-by-case basis

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